

TRAINING BULLETIN 2016

Michigan Department of Environmental Quality
Office of Drinking Water and Municipal Assistance
Environmental Health Section

2016 On-Line Wastewater Education 501(c)(3)

Location: WEBINAR BASED EDUCATION OPPORTUNITES

Date: MUST CALL TO ARRANGE

Time: NOT APPLICABLE – ARRANGEMENTS MADE WITH WASTEWATER EDUCATION

Course: THERE IS A TOTAL OF 19 WEBINAR BASED COURSES

Instructor: THIS VARIES AND IS UNDER THE DIRECTION OF MS. DENDRA J. BEST, Director of Wastewater Education 501(c)(3) Traverse City, Michigan 49685.

Credit Hours: THE COURSES MUST HAVE A PASSING SCORE OF 75% ON THE TEST TO BE TAKEN AT THE END OF THE COURSE TO BE ABLE TO OBTAIN THE CERTIFICATE, toward the continuing septage education (CSE) requirements outlined in Section 11703 of part 117. Only the CSE credits earned by the designated “responsible agent” for a given Michigan licensed septage firm will be credited to that firm.

Registration: For more information contact Ms. Dendra J. Best 1-231-233-1806 or info@wastewatereducation.org

Course Outline and Agenda:

The DEQ in cooperation with Waste Water Education 501(c)(3) based in Traverse City, Michigan which is under the direction of Ms. Dendra J. Best, has approved separate courses for Continuing Septage Education (CSE).

The following 36 credit hour webinar based CSE classes have been approved by MDEQ. Correct answers of 75% will be the passing minimum plus there will be a written assignment for each component.

Available Class Topics

Safety Procedures: Basic primer on personal safety both as an employer and as a single business owner. Areas to be covered:

Class 1 - 2016MI- 001 Safety Procedures Part One: Electricity 2 CSE - \$80

As more properties have outdoor electrical service, and increasing numbers of advanced systems have electrical components, even if your role is just to service the tank - outdoor electricity can be deadly, both man made and from nature. Areas to be covered referencing OSHA best practices:

Recognizing the limit of your ability

Your liability for wrongful actions.

How to be 360° Aware and anticipate electrical hazards

Site specific features

Overhead Power lines and buried utilities
Vehicle electrics
Static electricity
Residential property - homeowner wiring
Pumps, panels and components: best practices
Lightening awareness
ARC Flash - the basics
Best practices for responding to a case of electrocution

Class 2 - 2016MI- 002 Safety Procedures Part Two: Work site safety to avoid personal injury and liability 2 CSE - \$80

As a single business owner can you afford to be unable to work for an extended period of time? As an employer can you afford to have an employee file for Workers Compensation or sue you for injury on the job. Good policies are essential.

Attendees will learn how to create a personalized Safety Procedures Manual.

Involving your employees in preparing a Safety Procedures Manual is both common sense and protects you from liability.

Areas to be covered referencing OSHA best practices:

Gasses present in wastewater systems with reference to enclosed/ confined spaces. Positional asphyxia. Don't be the second victim - how to respond to potential life threatening situations.

Hazardous / inflammable conditions

Safe vehicle operation with particular attention to liquid transport vehicles

Common sense personal hygiene

Basic First Aid supply kit components

Line of sight safety for construction and installation

Basics of trenching and shoring

Ergonomically safe lifting techniques

Cell phone use both as a tool and as a hazard

Class 3 - 2016MI- 003 Assessing the site for a first time service visit, or for an established client. (This is a full TWO hour class) (2 CSE)- \$80

Regardless of whether this is a new or an old established client, the site assessment begins with the initial phone call. Being prepared for what site conditions exist or to be prepared for ensure both safe working conditions, protection for your self and the property owner.

This class examines how to review the site using online tools and what additional questions this might lead you to ask the property owner. Being prepared enables a pre-visit checklist. When you pull up in front of the property there are basic, common sense observations to make before you begin work. Being 360° aware will protect your personal safety, the investment you have in your vehicles, ensure an efficient use of your time at the site, protect the client's property and, most important, cement the professional relationship you have with the customer. Good habits build great businesses.

Areas to be covered:

In this session attendees will create a site specific database record using standard software and/or Smart Phone apps.

By recording observations, soils condition evaluation, and conditions at the time of visit, over time a pattern of use, or abuse, becomes evident.

In this class, attendees will learn how to anticipate potential hazards such as:

restricted access or movement on the site, tight driveways, distance the main roadway

overhead lines, low hanging tree limbs, soft shoulders

new structures

evidence of recent underground construction or tampering with the system

reported record of a malfunctioning system

small children or dogs

This becomes an education and marketing tool to build a strong relationship with the property owner and a valuable reference tool for yourself or a new employee visiting this property for the first time.

Class 4 - 2016MI- 004. HOW TO USE Google Earth Pro, and USDA NRCS WEB Soil Survey 2 CSE - \$80
In the Class titled Assessing the Site, service providers were introduced to the tools available to them to look at the location beforehand, assessing best access routes, anticipating logistical problems.
This class is both for service providers and installers.

This class will allow attendees to experiment and to review an actual site using:

- * Google Earth's layers and functions.
- * Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information - and invaluable tool for assessment and troubleshooting onsite systems. See <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

Class 5 - 2016MI- 005. Basic Math And System Calculations - 2 CSE \$80

Rationale: a competency in basic math is essential to service the system and ensure it is working correctly. This class is both for a n individual and a community system service event. Areas to be covered:

- Basic refresher course in understanding calculations for area, volume and how to examine a tank safely
- Gallons per cubic foot
- Detention time and displacement
- Is a Pump working efficiently
- Is an Event Counter accurate and set correctly for timed dosing
- How to calculate the working Flow rate and compare to specified Soil loading rates
- Locating bed and trenches and evaluating sizing
- Measure twice - pump once! Using basic and digital measuring devices.

Class 6 - 2016MI- 006. Understanding Conventional Systems - TANKS SERVICING, CLEANING AND INSPECTING 1.5 CSE- \$60

How they work, what to look for, in the home, inlets, outlets, tank construction, tank issues, effluent filters, measuring and observations, inspecting the drain field; when to do borings, where, what you may find.

Class 7 - 2016MI- 007. Understanding Conventional Systems - TREATMENT FIELDS SERVICING, TROUBLE SHOOTING AND INSPECTING 1.5 CSE- \$60

How they work, what to look for, and different media. Inspecting the drain field; when to do borings, where, what you may find. Groundwater issues, surface water discharge and hydrologic flow. Understanding and recognizing local soils.

Class 8 - 2016MI- 008. Understanding Conventional Systems - SITE SPECIFIC SERVICING AND REPAIRS 2 CSE \$80

For many long time service providers, just when you think you've seen it all, a surprise waits for you! Reminding yourself of best practices for servicing conventional systems is a good refresher, especially as there may have been changes and additions to the system since your last visit. In this class, service providers will be encouraged to share stories and experiences - including finding a tank installed backwards and having to use a chainsaw to punch a hole in a tank filled with 'disposable wipes'!

Class 9 - 2016MI- 009. Understanding Servicing Holding Tanks and Mounds at grade / above grade systems 1.5 CSE \$60

In this class we will review the reasons these systems have been installed and the special challenges of servicing.

Class 10 - 2016MI- 010 Check Lists, Inspections and Disclosure Forms 2 CSE - \$80

Service providers routinely do system inspections, both on occupied properties as part of a normal service call, but also on a property that has sat empty for an extended period of time. There are legal and ethical considerations - and development of sound policies and procedure are essential.

Utilizing checklists for all service visits is a best practice to ensure nothing is overlooked.

Creating a Disclosure Statement is good business practice for many reasons.

Recognizing the difference between an inspection and an evaluation will be covered, also best practices for collecting system samples for performance evaluation.

This class will discuss best practices and options for official onsite inspector certification.

Class 11 - 2016MI- 011. PPCPs 1.5 CSE- \$60

A conversation about Pharmaceutical Products, Personal Care Products, Pesticides, Petroleum based cleaning and Plasticizing Products and their effect on wastewater system performance and the environment. What to look for, basic safety precautions, legal considerations.

Class 12 - 2016MI- 012. Educating the property owner on best management and operation practices. 2 CSE - \$80

Building a relationship of trust with the property owner is more than just a 'pump and go' event. Educating the public about their responsibility as an onsite system owner is compatible with your role as an environmental and public health professional. A recent study made the claim that the average adult has a 5-8th Grade understanding of science but a basic understanding of how a septic system works is essential to their performance and your ability to properly service them.

This class will cover resources available for you to develop communication skills and customize education services and messaging for the property owner to promote the reason we are all in this business - to protect public and environmental health:

- a) an appreciation, and understanding, of how their specific system works - using EPA Septic Smart Tools and Resources
- b) helpful tips on how to cut down on both service and electricity costs by practicing water conservation - using EPA WaterSense™
- c) drainfield and system protection best practices - and understanding of basic soil biology and structures and how this affects good treatment - using resources available from NRCS.
- d) seasonal issues - protecting the system and reserve treatment area in both freezing and drought conditions.
- e) Why there IS a reserve treatment area - explanation of Groundwater Awareness Week
- f) property use issues - i.e home based businesses
- g) local/state regulations for the property owner to be aware of.
- h) a better appreciation of what you do as a service provider.

Class 13 - 2016MI-013 Pathogens and Parasites. (This is a full TWO hour class)(2 CSE) - \$80

Safety Procedures: Basic primer on personal safety best practices both as an employer and as a single business owner.

Areas to be covered will reference:

CDC Guidelines. [15 minutes]

Understanding the difference between parasitic, bacteria and virus structures [20 minutes]

Vectors for infection and recognition of symptoms. [15 minutes]

Disinfection best practices [10 minutes]

PPE guidelines and preventative measures [10 minutes]

Legal obligations and responsibility in the safe handling of human waste. [15 minutes]

Public outreach and communication [10 minutes]

Common sense personal hygiene for contact and clothing [10 minutes]

Developing a spill response plan [15 minutes]

Class 14 - 2016MI- 014: The Basics: An introduction to wastewater treatment processes and microbiology for package treatment and septage receiving. (This is a full TWO hour class)(2 CSE) - \$80

An interactive live 2 hour introduction to the absolute basics of how biological wastewater treatment systems and microorganisms operate.

This class is both for those at the very start of their careers as well as those who would just like to know more about the hidden world of microbes!

We have good health in this country because we train professionals to understand how biology and chemistry make wastewater treatment systems work.

Come learn the basics!

It's been since 1911 since the US has had a major outbreak of cholera but preventing incidences of water born illness are the central reason environmental professionals strive for excellence in wastewater system design, operation and maintenance.

Wastewater practitioners have to start somewhere on their long road to becoming a professional operator.

Instructor: Ryan Hennessy

Class 15 - 2016MI- 015. Bugs Without Borders - A primer for disease vectors of emerging concern to wastewater service providers. (This is a full TWO hour class)(2 CSE) - \$80

- Vectors for infection are changing especially emerging infections due to changing climate and weather conditions.
- Projected climate changes and increased risk to service providers of exposure from insects and emerging pathogens will be examined.
- Recognition of symptoms.
- This class will assess known risks and evolving CDC guidelines.

Areas to be covered will reference OSHA 1926

Class 16 - 2016MI- 016: An introduction to OSHA Fall Protection Safety standards for wastewater service providers. (This is a full TWO hour class)(2 CSE) - \$80

An interactive live TWO Hour class will be taught online on a rotating basis to a live audience referencing the MIOSHA Part 45, Fall Protection Safety Standard. We will review recent publicized accidents and fatalities, latest fall protection techniques and criteria.

Sam Lines is an OSHA Authorized General Industry Trainer.

Class 17 - 2016MI- 017: Shoulda, Woulda, Coulda - being the Responsible Party. Your options and obligations for avoiding liability and prosecution.. (This is a full TWO hour class)(2 CSE) - \$80

Areas to be covered: Recognizing the limit of your ability. Your liability for wrongful actions both as a sole proprietor or by your employees. Vehicle coverage. Worker safety and Workers Compensation. What 'SHOULD' you be covered for - what 'MUST' you be covered for - what 'COULD' you have been covered for: bonds, personal, broadform, general liability, professional liability, business, record recovery, vehicle, health, and disability. Liability and insurance best practices for service providers.

By being designated a MI 'responsible agent' that person becomes liable for ensuring his or her business operates in compliance with both state law and prevailing local regulations. In October, 2014 the headline read: "Man Sues Mom for \$4 Million Over Septic Explosion" In May, 2014 the headline read: "Washington Pumper Sentenced to Prison for Illegal Dumping" In March, 2013 the headline read: "Septic professionals indicted in bribery scheme" And perhaps the saddest of all from September, 2014: "Septic Inspection Turns Deadly" Do you have an employee Handbook? Does it protect you from liability? Will it cover your legal fees if you have to

defend from a situation like this from January of 2016: "Family rescues boy who fell into Denny's grease pit." In the eyes of the law YOU are the responsible party - are you covered?

This class will cover content as it relates to liability and insurance for both septic service and portable sanitation providers against:

- * loss of license
- * criminal negligence - felony or misdemeanor?
- * employee negligence during the transport of hazardous human waste
- * proper vehicle coverage and liability for operation
- * groundwater or surface water contamination
- * health and safety - MIOSHA and Workers Comp
- * accidental wrongful death or physical harm to the public
- * trespass
- * loss of business records
- * fire and theft

Class 18 - 2016MI- 018: Dealing with extreme weather events 2 CSE \$80

As an active participant in programs and presentations of the OSU Climate Change Outreach Team", and in view of severe weather events from recent years, onsite system service providers will need to become aware of and trained for conditions which stress, damage or limit the performance of onsite wastewater systems. This class will review wet weather events, prolonged ice and snow cover, drought and heat periods as well as natural disasters.

Class 19 - 2016MI- 019: Portable Sanitation Issues and Part 117, Septage Waste Servicers (Part 117), Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). 2 CSE \$80

To be covered:

- Disinfectant - safe handling and best practices
- Worker Safety
- Event best practices
- Local and State requirements
- Servicing and disposal

COURSE FEE REIMBURSEMENT

Information on CSE course fee reimbursement may be found on the Michigan Department of Environmental Quality (DEQ) [Septage Waste Program website](http://www.michigan.gov/deqseptage) (www.michigan.gov/deqseptage)

Course Cancellation/Rescheduling: Some courses may be cancelled or rescheduled due to low enrollment/registration or other reasons. The DEQ is not responsible for any course cancelled or rescheduled by a course sponsor. Course sponsors are strongly encouraged to notify the DEQ and those who have registered for the course in a timely manner when a course is cancelled or rescheduled prior to the date the course is scheduled to be offered. Course attendees from Michigan are encouraged to make adequate consultation with the course sponsor before registering for the course.

Additional information about the reimbursement, you may call Mr. Matt Rockhold, DEQ, at 517-284-6540.

Questions regarding the above courses may be directed to the Director of Wastewater Education 501(c)(3) Ms. Dendra J. Best, at 231-233-1806.